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CHUGACH NATIONAL FOREST



Kynan Adams with a Dusky Canada goose nest found during nest searches

FY2010 Forest Plan Monitoring and Evaluation Report

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EXECUTIVE SUMMARY

The Forest Plan and subsequent documents established 43 general monitoring questions for the Chugach National Forest. Included are three questions added after the Plan was published. One had been left out inadvertently and two were added as a result of appeal decisions. In fiscal year 2010 (FY10), 6 of the 43 questions were monitored. These include: ecosystem trends and changes, bear human interactions, brown bear population, dusky Canada geese nest islands, fire protection and fuels management, and Research Natural Areas. Kenai wolverine monitoring was funded but not accomplished due to winter weather conditions which were unfavorable for conducting aerial surveys. Monitoring results are displayed in this report. The remaining questions in the monitoring strategy were not monitored for reasons including: (1) monitoring protocol had not been completed or approved by the Forest Leadership Team, (2) monitoring schedule that did not require monitoring to take place in FY10, (3) low priority under budget constraints, (4) other work priorities.

CERTIFICATION

I have reviewed the FY2010 Forest Plan Monitoring and Evaluation Report for the Chugach National Forest. Under laws and regulations in effect at the time the Forest Plan was revised (May 31, 2002) a forest plan is generally revised every 10 to 15 years, or whenever the Forest Supervisor determines that conditions or demands have changed. 2010 was the eighth year implementing the Revised Land and Resource Management Plan. I am satisfied that the revised Forest Plan is sufficient to guide management of the Forest and that there is no need to change the plan at this time.

This report is approved.



Terri Marceron
Forest Supervisor



Date

INTRODUCTION

This is the annual monitoring and evaluation report for fiscal year 2010 (FY10) for the Chugach National Forest Revised Land and Resource Management Plan (Forest Plan). The Forest Plan provides guidance for all resource management activities on the Chugach National Forest. It does this in part by establishing Forest-wide goals, objectives, and management direction. The monitoring and evaluation process is used to ensure that Forest Plan direction is being implemented, is effective, and is not causing effects that were not predicted in the Forest Plan's Final Environmental Impact Statement (FEIS). The evaluation process is also used to assess progress in achieving the desired conditions, goals, and objectives, and to verify that assumptions made in the Forest Plan and FEIS are valid.

The Forest's monitoring and evaluation strategy is located in Chapter 5 of the Forest Plan. The strategy outlines the basic elements of the monitoring program, establishes a Monitoring and Evaluation Interdisciplinary Team, and defines 40 key monitoring questions. Three questions were added after the Forest Plan was published, resulting in 43 items to be monitored. The three additional questions included one left out inadvertently (monitoring of mountain goat, a management indicator species), and two added as a result of appeal decisions (air quality and summer off-highway vehicle use).

With the recognition that current funding is inadequate to conduct monitoring on all 43 monitoring questions the Monitoring and Evaluation Interdisciplinary Team conducted a rigorous analysis to rank the questions in importance. This team proposed pursuing the top (priority) 30 key monitoring questions. The Forest Leadership Team approved this proposal in 2006. The remaining 13 monitoring questions are proposed to be dropped from the monitoring strategy. To date, 24 monitoring protocols have been approved by the Forest Leadership Team. The remaining priority monitoring protocols are currently being developed.

Monitoring efforts were limited while protocols were being developed and approved. Prior to 2009 six protocols were approved by the Forest Leadership Team. Seven protocols were approved in 2009, but did not get into the FY10 funding stream. Eleven monitoring protocols were approved in 2010 and 2011. Monitoring is anticipated to increase in FY11 and beyond. In FY11 15 questions are being monitored, and in FY12 it is anticipate that 18 questions will be monitored. Protocols are documented in the Monitoring Guide and their revision occurs outside of the forest planning process in order to be responsive to the best available science. A copy of the most current Monitoring Guide can be obtained from the Supervisor's Office.

MONITORING ITEMS

All Forest Plan monitoring questions, including items for which no monitoring occurred, are presented below with a summary of results for FY2010. Reasons questions were not monitored in FY2010 include: (1) monitoring protocol had not been completed or approved by the Forest Leadership Team, (2) monitoring schedule that did not require monitoring to take place in FY10, (3) low priority under budget constraints, (4) other work priorities.

The general monitoring questions are grouped by monitoring purpose or applicable resource category (e.g., soil resources). For each general monitoring question, the frequency (i.e., schedule) of data collection and evaluation are displayed as presented in Chapter 5 of the Forest Plan, or as established in the approval of peer reviewed monitoring protocols. The schedules represent expectations under maximum funding levels.

Monitoring results are summarized and evaluated only for items monitored in FY2010 and include (1) recommendations for remedial action, and (2) actions taken in FY2010 to respond to previous recommendations. The monitoring strategy specifically calls for these items to be included in the annual reports.

Compliance with Revised Forest Plan

Are projects being implemented consistent with the Forest Plan direction?

- Frequency of Collection: Annually
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated due to other work priorities. Monitoring is scheduled for 2011.

Integrated Effectiveness/Validation Monitoring

Are management activities achieving their intended outcomes?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. Protocol was approved by the Forest Leadership Team in March of 2011. Monitoring is scheduled for 2011.

To what extent is ecosystem composition and structure changing and has forest management influenced these changes? How do these changes compare to the expected range?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Monitored and evaluated.

The monitoring method is that of the "Ecosystem Change" protocol (approved in 2009) of the Chugach National Forest Monitoring Guide. In FY2010, the plan was to summarize and interpret Forest Inventory and Analysis (FIA) grid inventory data. The Pacific Northwest Research Station (PNW) prepared a report on "*Forests of Southeast and South-Central Alaska, 2004-2008*" (Barrett and Christensen 2010) which provides a summary overview of FIA data for coastal Alaska. Rather than conduct a separate analysis work on the Chugach "ecosystem change" project focused on providing a technical review of Barrett and Christensen (2010).

Comments were provided to PNW on chapters concerning: change in forests between 1995-2003 and 2004-2008; vegetation diversity; old-growth forests in coastal Alaska; yellow-cedar, forest decline, and an adaptive strategy for climate change; invasive plants in coastal Alaska; and conclusions. Some notable findings relevant to the Chugach include:

- On the Chugach National Forest, aboveground live tree carbon and gross volume increased by about four percent between the 1995-2003 and 2004-2008 inventories.
- On the Kenai Peninsula, about 47 percent of the carbon is stored in snags primarily killed by spruce bark beetle (*Dendroctonus rufipennis*) in the 1990s.

- Alaska's coastal forests are relatively free of non-native plant species. Less than two percent of forested plots had non-native plants compared to 67 percent of plots in other parts of the United States.

Evaluation: The magnitude of potential effects of climate change on ecosystem composition and structure across the Chugach National Forest is currently little known. Climate change was only slightly considered in the 2002 FEIS. Use of climate sensitive vegetation models in planning and management efforts may be desirable to assist the Forest in scenario development and being proactive in regard to climate change.

Owing to the relative rarity of non-native invasive plants in natural communities of the Chugach National Forest, managers of the Forest are in a unique position to prevent invasive plant problems before they occur. Prevention is generally much cheaper than control and identifying outbreaks early and responding to them quickly can reduce costs.

Recommendation of Remedial Action: None

Actions taken in response to previous reports: None

Other recommendations: None

Air Resources

Are Forest management actions contributing to changes in air quality on the Forest?

Note: This general question was added in response to the Revised Forest Plan appeal decision. It was added to the Revised Forest Plan in a September 2010 Decision Memo.

- Frequency of collection: Every 3-5 years
- Frequency of evaluation: Every 3-5 years
- Status in FY2010: Not monitored or evaluated. Initial monitoring occurred in 2007 and is scheduled to occur next in 2012.

Soil Resources

What is the level of ground disturbing activity?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. This monitoring protocol is currently being developed and is anticipated to be completed in 2011 and implemented in 2012.

The Chief's decision regarding the appeals made on the Forest Plan resulted in the need to add two additional questions to the Forest's monitoring and evaluation strategy, one to monitor the effects of OHV use on the soil resource, and the second to monitor air quality changes over time. A decision was made to combine the OHV and soils resource monitoring into one protocol.

What is the effect of summer OHV use on soils and/or vegetation where OHV use is allowed?

Note: This general question was added in response to the Revised Forest Plan Appeal Decision. It was added to the Revised Forest Plan in a September 2010 Decision Memo. This question is being combined with the level of ground disturbing activity monitoring question (above) into one monitoring protocol.

Water Resources

What is the existing water quantity?

It has been proposed that this monitoring question be dropped from the monitoring strategy because it reflects a research question rather than a monitoring need. The Forest does not have a protocol for this question at this time.

Are Best Management Practices (including wetland management) effective in meeting water quality standards?

- Frequency of Collection: Annual
- Frequency of Evaluation: Annual
- Status in FY2010: Not monitored or evaluated due to other work priorities. Monitoring is scheduled for 2011.

Sensitive and Exotic Plant Species

What is the abundance and distribution of sensitive plants in areas affected by management activities?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. The sensitive plants monitoring protocol was approved by the Forest leadership team in April, 2009. Monitoring is scheduled for 2011.

What is the distribution and abundance of exotic plants, particularly in areas affected by management activities?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. The invasive plants monitoring protocol was approved by the Forest leadership team in April, 2009. Monitoring is scheduled for 2011.

Management Indicator Species

What are the population trends for Management Indicator Species (MIS) and their relationship to habitat? Are MIS truly reflective of all fish and wildlife species on the Forest?

Status in FY2010: Upon the evaluation of the Monitoring and Evaluation Interdisciplinary Team, a recommendation has been made to drop this question from the monitoring strategy because: (1) the first component of the question is redundant with the general monitoring questions for specific MIS, and (2) the second component of the question is more appropriately addressed as a research item than as a monitoring question.

Has the Revised Forest Plan direction prevented adverse interactions between bears and humans?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Monitored and Evaluated

The Forest Plan seeks to manage human use within bear habitat to minimize the risk of "defense of life and property" mortality to brown bears. As a desired condition, the plan states "Brown bear/human confrontations will be minimal in important seasonal feeding areas and travel corridors, resulting in limited risks to brown bears through "defense of life and property" (DLP) mortality. The plan also designated Brown Bear Core Management Areas "to manage selected landscapes and their associated habitats to meet population objectives for brown bears and to reduce dangerous encounters between humans and brown bears". These areas occur on the Kenai Peninsula, and have a priority for minimizing bear-human interactions, especially those resulting in human harm or bear DLP. The Brown Bear Core Management Area specifically limits human-bear interactions by prescribing a 750 foot buffer to provide cover for brown bears while feeding at key anadromous fish streams. Combined with the Forestwide standard to limit the attractiveness of garbage and food to bears, this will help maintain brown bear viability on the Forest. The Revised Forest Plan is consistent with the recommendations of the Interagency Brown Bear Study Team conservation strategy completed in 2002.

For the second consecutive year there were no DLPs recorded on Chugach National Forest, but there was an illegal mortality of a brown bear that was found near the Bean Creek trailhead. This is in contrast to 2008 when 8 DLPs occurred in the Russian-Kenai River confluence management area along with 1 other DLP near Resurrection Trail and 1 illegal kill found on near Canyon Creek (North of Summit Lake).

Evaluation: The above monitoring indicates that the Revised Forest Plan direction appears to be preventing adverse interactions between bears and humans.

Recommendation of Remedial Action: None

Actions taken in response to previous reports: None

Other recommendations: None

What are the population trends for brown bear and the relationship to habitat?

- Frequency of Collection: Annual
- Frequency of Evaluation: Annual
- Status in FY2010: Monitored in 2010, evaluation anticipated in 2011.

Kenai Peninsula brown bears are considered a Population of Special Concern by the State of Alaska and they are also a management indicator species (MIS) on the Chugach National Forest; however, the status of the population is unknown. In 2006, the Interagency Brown Bear Study Team (IBBST) specifically recommended that a scientifically defensible estimate of the Kenai brown bear population using DNA-based mark-recapture techniques be obtained (DeBruyn et al. 2006). During the summer of 2010 the Chugach National Forest and the Kenai National Wildlife Refuge collaborated on a study to estimate the Kenai brown bear population on those federal estates. The primary objective of this study was to estimate the brown bear population on those federal estates with a precision of $\pm 25\%$ of the true population. The study design identified methods to noninvasively collect brown bear hair at barbed-wire hair traps systematically distributed on a grid of 180 9 km x 9 km cells from June 1st – 30th, 2010. Trap session length was 5 days with five consecutive sessions for a total of 25 days. Hair samples collected during the sampling period were sent to Wildlife Genetics International for DNA analysis. Once these results become available a wildlife biometrician specializing in DNA-based mark-recapture studies will assist with data analysis and report preparation.



Evaluation: This study is ongoing with results expected in 2011.

Recommendation of Remedial Action: None

Actions taken in response to previous reports: None

Other recommendations: None

What are the population trends for dusky Canada geese and the relationship to habitat?

- Frequency of Collection: Annual for artificial nest island monitoring, and every third year for population trends.
- Frequency of Evaluation: Annual, and every 3 years
- Status in FY2010: Monitored and Evaluated. Monitoring in 2010 consisted of monitoring dusky Canada goose population trends. Monitoring protocols for both population trends and habitat (nest islands) were approved in February, 2010.

As the primary land manager for the Copper River Delta, the U.S. Forest Service (USFS) is responsible for assessing habitat-related changes in the dusky population. In 1993 a cooperative project was initiated with ADF&G and USFWS to directly estimate the number of nests and eggs of dusky Canada geese; compare ground-based estimates (done by U.S. Forest Service) with aerial survey estimates (done by USF&WS), and describe habitat use by geese. Combining ground based estimates with aerial surveys allows us to obtain and monitor dusky population estimates with confidence intervals.

In 2010 44 ground plots were searched and 44 dusky Canada goose nests were found, an additional 26 nests of other species were also cataloged during the surveys. Shrub1 communities (41-70% shrub cover) and shrub 2 (71-100% shrub cover) contained the highest number of nests. Sweet gale, grass, and moss were the predominant vegetation types at the nest. Average shrub height at the nest was 100 cm with about 40% shrub cover. Nest sites were most commonly located in interlevee basins and levees.

Evaluation: Final population estimates and trends from USF&WS have not yet been received.

Recommendation of Remedial Action:

Actions taken in response to previous reports: None

Other recommendations: None

What are the population trends for moose and the relationship to habitat?

- Frequency of Collection: Every 2 years
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. The moose population monitoring protocol was approved by the Forest Leadership Team in November 2010, monitoring is scheduled for 2012. The moose habitat monitoring protocol is under development and is anticipated to be approved in 2011.

What are the population trends for black oystercatchers and the relationship to habitat change?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. The black oystercatcher monitoring protocol was approved by the Forest Leadership Team in March, 2011. Monitoring is scheduled for 2012.

What are the population trends for Dolly Varden char and the relationship to habitat?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. Upon the evaluation of the Forest's fisheries biologist, Regional WFEW Director, and the CNF Planning and Resources Staff Officer, a recommendation has been made to drop this question from the monitoring strategy because of the extreme difficulty in being able to detect any meaningful level of change as a result of the Forest's management practices. A more appropriate question will be developed to replace this one.

What are the population trends for Coho salmon and the relationship to habitat?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. Upon the evaluation of the Forest's fisheries biologist, Regional WFEW Director, and the CNF Planning and Resources Staff Officer, a recommendation has been made to drop this question from the monitoring strategy because of the extreme difficulty in being able to detect any meaningful level of change as a result of the Forest's management practices. A more appropriate question will be developed to replace this one.

What are the population trends for mountain goat and the relationship to habitat *change*?

Note: This question was inadvertently omitted during the development of the Revised Forest Plan. It was added to the Revised Forest Plan in a September 2010 Decision Memo.

- Frequency of Collection: Every 2 years
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. The protocol for mountain goat population trends was approved by the Forest Leadership Team in November, 2010. Monitoring is scheduled for 2012.

Species of Special Interest

Is Forest management maintaining favorable conditions for sustaining gray wolves?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. All species of special interest monitoring questions ranked low in priority during the Monitoring and Evaluation Interdisciplinary Team ranking process. Consequently no protocols are being developed at this time for these questions. Should the inventory and monitoring budgets remain the same or decline, the Forest will propose dropping these questions.

Is Forest management maintaining favorable conditions for sustaining Kenai wolverines?

- Frequency of Collection: 5 out of 10 years
- Frequency of Evaluation: 5 out of 10 years

Status in FY2010: Not monitored or evaluated. Monitoring was scheduled and funded for 2010, but winter weather conditions were unfavorable for conducting aerial surveys. Monitoring has been rescheduled for 2011.

Evaluation: Monitoring scheduled but not accomplished due to unfavorable aerial survey conditions.

Recommendation of Remedial Action: Work closely with ADF&G to ensure surveys are conducted when suitable survey conditions exist.

Actions taken in response to previous reports: None

Other recommendations: None

Is Forest management maintaining favorable conditions for sustaining Townsend warblers?

- Frequency of Collection: Every 5th year
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. All species of special interest monitoring questions ranked low in priority during the Monitoring and Evaluation Interdisciplinary Team ranking process. Consequently no protocols are being developed at this time for these questions. Should the inventory and monitoring budgets remain the same or decline, the Forest will propose dropping these questions.

Is Forest management maintaining favorable conditions for sustaining northern goshawks?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. All species of special interest monitoring questions ranked low in priority during the Monitoring and Evaluation Interdisciplinary Team ranking process. Consequently no protocols are being developed at this time for these questions. Should the inventory and monitoring budgets remain the same or decline, the Forest will propose dropping these questions.

Is Forest management maintaining favorable conditions for sustaining Sitka black-tailed deer?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. All species of special interest monitoring questions ranked low in priority during the Monitoring and Evaluation Interdisciplinary Team ranking process. Consequently no protocols are being developed at this time for these questions. Should the inventory and monitoring budgets remain the same or decline, the Forest will propose dropping these questions.

Is Forest management maintaining favorable conditions for sustaining the Montague Island marmot?

- Frequency of Collection: 1 time
- Frequency of Evaluation: Every 5th year (if marmot are found to be present, adjustments will be made to the schedule)

- Status in FY2010: Not monitored or evaluated. All species of special interest monitoring questions ranked low in priority during the Monitoring and Evaluation Interdisciplinary Team ranking process. Consequently no protocols are being developed at this time for these questions. Should the inventory and monitoring budgets remain the same or decline, the Forest will propose dropping these questions.

Is Forest management maintaining favorable conditions for sustaining cutthroat trout?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. All species of special interest monitoring questions ranked low in priority during the Monitoring and Evaluation Interdisciplinary Team ranking process. Consequently no protocols are being developed at this time for these questions. Should the inventory and monitoring budgets remain the same or decline, the Forest will propose dropping these questions.

Threatened, Endangered and Sensitive Animal Species

What are the population trends for trumpeter swans and the relationship to habitat change?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. Trumpeter Swans were removed from the Region's Sensitive Species list in February 2009. There are no management issues associated with this species and its population is not of concern. As a consequence, no monitoring protocol is currently being developed and a recommendation will be made to drop this question from the Forest's monitoring strategy.

Forest Products

Are forestlands restocked?

- Frequency of Collection: Annual sample of selected areas
- Frequency of Evaluation: Annual
- Status in FY2010: Not monitored or evaluated. Currently the Chugach National Forest does not have any outstanding acres where timber was harvested that have not been certified as being adequately restocked. Since the reforestation needs associated with timber harvest on the Chugach National Forest were zeroed out at the end of FY06, no more reports are necessary. In addition, under the Revised Forest Plan, no areas of the forest are designated for timber production so there are no restocking needs at this time. The "restocking" protocol is a placeholder should the Forest embark in activities that require restocking certification, but that this

is not anticipated. This monitoring protocol was approved by the Forest Leadership Team in 2007.

Have conditions changed that would affect the suitability of timber production lands?

- Frequency of Collection: Every 10 years
- Frequency of Evaluation: Every 10 years
- Status in FY2010: Not monitored or evaluated. Protocol approved by the Forest leadership team in 2007. Monitoring is scheduled for 2012.

Minerals

Are mining plans of operations consistent with Revised Forest Plan direction?

- Frequency of Collection: One time
- Frequency of Evaluation: At year 5
- Status in FY2010: Not monitored or evaluated. In FY08 this question was determined to be an inventory and the recommendation was made to drop this question from the monitoring strategy.

Heritage Resources

Are National Register eligible heritage resources being adequately maintained and protected?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. Monitoring protocol was approved by the Forest Leadership Team in November, 2010. Monitoring is scheduled for 2011. This monitoring combines the two Heritage Resources questions into one protocol.

What is the status and condition of heritage resources on the Forest?

This question was combined with the above Heritage resource question into one monitoring protocol. Monitoring is scheduled for 2011.

Recreation Opportunities, Tourism, Access, and Facilities

What are the characteristics of recreational visitors? What is their pattern of recreational use? What are their perceptions of opportunities and settings?

- Frequency of Collection: Once every 5 years
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. This monitoring question ranked low in priority during the Monitoring and Evaluation Interdisciplinary Team ranking process. Additionally, it was determined that the National Visitor Use Monitoring (NVUM) survey with its added location specific questions could adequately address this question. Consequently no

protocol is being developed at this time. The Forest has proposed dropping this question. The NVUM survey was conducted on the Forest in 2008, and is scheduled to be conducted next in 2012.

Is the Revised Forest Plan direction for motorized and non-motorized access working?

- Frequency of Collection: Every 5th year
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. Monitoring protocol was approved by the Forest Leadership Team in 2009 and is scheduled for 2011.

Are areas of the Forest being managed in accordance with the prescribed Recreation Opportunity Spectrum (ROS) class in Forestwide standards and guidelines?

- Frequency of Collection: Annual
- Frequency of Evaluation: 5 years
- Status in FY2010: Not monitored or evaluated. This monitoring question ranked low in priority during the Monitoring and Evaluation Interdisciplinary Team ranking process. Consequently no protocol is being developed at this time. Should the inventory and monitoring budgets remain the same or decline, the Forest will propose dropping this question.

What is the use of developed recreational facilities and how does it compare to capacity?

- Frequency of Collection: Every 5th year
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. Protocol was approved by the Forest Leadership Team in 2009, and is scheduled for 2012.

What are the trends in commercial recreation services on the Forest and how does it compare to capacity?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 3rd year
- Status in FY2010: Not monitored or evaluated. Protocol was approved by the Forest Leadership Team in 2009. Monitoring is scheduled to begin in 2011.

Scenic Quality

Are areas of the Forest being managed in accordance with the Scenery Integrity Objectives (SIO) in Forest-wide Standards and Guidelines?

- Frequency of Collection: Annual sample of selected areas
- Frequency of Evaluation: Every 5th year

- Status in FY2010: Not monitored or evaluated. The protocol was approved by the Forest Leadership team in 2009. Monitoring is scheduled for 2011.

Fire Protection and Fuels Management

What is the pattern of abundance of different fuel types on the Kenai Peninsula?

- Frequency of Collection: Annual or once every 5 years depending on the method used.
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Monitored and evaluated.

The fire and fuels protocol was approved by the Forest Leadership Team in March, 2010. The protocol includes both effectiveness and implementation monitoring components. The effectiveness monitoring component interprets whether changes in fire regime condition class (FRCC) and down wood abundance (based on Forest Inventory and Analysis data) on the Kenai Peninsula geographic area are of sufficient magnitude to be a concern to management. The effectiveness monitoring component is reported every five years with the first report expected in 2012. The implementation monitoring component is to determine if fire protection and fuels management activities are consistent with the goals, objectives, standards and guidelines specified in the Forest Plan. The implementation monitoring component is monitored annually.

Evaluation: In FY2010, about 615 acres of hazardous fuel reduction were accomplished (documented in FACTS). The Forest Plan specifies that 400 acres of hazardous fuel reduction should be completed annually to reduce fuel buildups. Therefore, in FY2010 this annual specification was exceeded. All fire and fuels management activities were consistent with the Forest Plan except for the treatment guideline to remove or treat visible debris from activity fuels within one year of vegetation management. Not all visible activity fuels can be treated within the first year. This is due to projects that have multiple activities such as cut, pile and burn. Piled debris needs at least one curing season and in some cases two. Pile curing is dependent on site location, species of piled material, time of year cut and management objectives. These factors contribute to the non attainment of this goal.

Recommendation of Remedial Action: Guidelines are courses of action that are normally expected to be followed. Deviations from guidelines must be analyzed during project-level analysis and documented in a project decision document but do not require a Revised Forest Plan Amendment. NEPA documentation will be reviewed to determine if project-level analysis and documentation related to the above guideline was followed. Future NEPA for fuel reduction should include the required project-level analysis and documentation.

Actions Taken In Response to Previous Reports: None

Other Recommendations: None

Wilderness

Is the wilderness character of the Wilderness Study Area (WSA) and areas recommended for Wilderness being maintained?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. The protocol was approved by the Forest Leadership Team in March, 2011. Monitoring is scheduled for 2012.

Research Natural Areas

Are proposed and established Research Natural Areas (RNA) being maintained in a state unmodified by human activity?

- Frequency of Collection: Annual, and every 5 years
- Frequency of Evaluation: Annual, and every 5 years
- Status in FY2010: Monitored and Evaluated

There are five research natural areas (RNAs) on the Chugach National Forest. This monitoring documents the ways that each of the Research Natural Areas (RNAs) on the Forest are being managed in a manner consistent with Standards and Guidelines and RNA Management Area Prescriptions specified in the Forest Plan. There are two methodologies for this protocol; 1) database review that occurs annually, and 2) visitor effects monitoring that occur once every 5 years (scheduled to take place in 2012).

Evaluation: In FY2010, no cases of non-compliance were found for any of the five RNAs on the Forest.

Recommendation of remedial action: None

Actions taken in response to previous reports: None

Other recommendations: The U.S. Geological Survey (USGS) has carried out research at Wolverine Glacier RNA since 1966. It may be desirable to formalize an agreement between USGS and the Forest Service to facilitate the continuance of this work. The Easements geodatabase of the Chugach GIS includes an Olsen Bay Easement Trail within the Olsen Bay Creek RNA. This trail does not currently exist and is not planned. The Transportation geodatabase of the Chugach GIS had included a small portion of the Copper Sands RNA within the Barrier Islands Travel Management Area. This was likely a digitizing oversight that has been resolved with editing.

Community Effects

What are the trends in local economies?

- Frequency of Collection: Annual
- Frequency of Evaluation: Every 3rd year
- Status in FY2010: Not monitored or evaluated. This question ranked low in priority during the Monitoring and Evaluation Interdisciplinary Team ranking process. Consequently no protocol is being developed at this time. Should the inventory and monitoring budgets remain the same or decline, the Forest will propose dropping this question.

What are the effects of National Forest management on lands, resources and communities adjacent to the Forest?

- Frequency of Collection: Once every 5 years
- Frequency of Evaluation: Every 5th year
- Status in FY2010: Not monitored or evaluated. This question ranked low in priority during the Monitoring and Evaluation Interdisciplinary Team ranking process. Consequently no protocol is being developed at this time. Should the inventory and monitoring budgets remain the same or decline, the Forest will propose dropping this question.

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